

# THE FARMER & GARDENER

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BALTIMORE: TUESDAY, SEPTEMBER 19, 1837.

It is mentioned by Sir Humphrey Davy, upon the authority of an article in the Philosophical transactions for 1799, that in the years 1795 and 1796, when almost the whole crop of corn, (wheat,) in the British island, was blighted, the varieties obtained by crossing, alone escaped, though sown in several soils, and in very different situations.

The manner of crossing is very simple, merely by sowing different kinds of wheat, promiscuously in the same field, the product of which will be a new variety. The fact as detailed above seemed to us to be important to be known, we have therefore abstracted it with a view of laying it before our readers, and would suggest, that if the production of a new variety, by this simple process of crossing, has the tendency to impart superior capacity to it to resist disease, would it not be well for wheat-growers to make the experiment. It might be tried on a small scale first, and if found to be of utility, it would be an easy matter to extend it to any desirable limit.

**Spring Wheat**—Not having yet disposed of the whole of the 140 bbls. of spring wheat advertised by us, we take this occasion to say, that those who may want to procure one or more barrels, would do well to apply without delay, or they may be too late.

**Price of Cotton**—We are gratified to find by the last advices from England, that the price of cotton has improved, and was looking up both in demand and value. This we know will be pleasing intelligence to our southern and south-western subscribers, who are deeply interested in all that gives appreciation to the great staple of that region of our country. Should the price continue to improve to any considerable extent, the enterprising cotton-planters will very soon be relieved from their embarrassments arising out of the sud-

den depression in the value of cotton last spring; for through their prudent foresight, in ploughing up portions of their cotton fields and putting them down in corn, they will be relieved from a very onerous tax,—the purchase of corn,—and will enter the market with their new crops, in a much sounder condition, notwithstanding the depreciated value of their cotton, than they have been in for years; for if their cotton crops do not bring as much, being relieved from the drawback to which we have alluded, the most of them will have less demand for the proceeds of them by several thousands of dollars.

This is the month for destroying weeds and bushes, and should be improved. If dock and similar pests be cut off at the ground with a hoe, they will in nine cases out of ten perish, from the two-fold cause of bleeding and exposure to the frosts of the approaching winter. So also, if bushes and shrubs be cut off, the same causes will operate to their destruction.

We gathered our early patch of Dutton corn on the 17th of August, when it was sufficiently hard for grinding. We have some of it shelled, and intend to send a grist of it to the mill to try its virtue in bread. If the meal should prove as sweet as the roasting ears were, we shall be satisfied, for of a verity they were most luscious.

**Cheap Thrashing Machines**—We observe by an advertisement in the New York Evening Star, that a Mr. E. Warren of that city has thrashing machines, made in the strongest manner of wrought iron and wood, which are represented as not being liable to get out of order, and thrash all kinds of grain equally well, which he sells at from \$20 to \$40 a piece. Machines at \$25 and \$30 with one or two horses will thrash from 80 to 160 bushels of wheat per day—those at \$40 designed for large farmers, thrash from 200 to 300 in the same time. If those machines will do the work here represented, they certainly are cheap, for there is no more necessary implement on a farm, whether the economy of time or money be considered.

We have mentioned these articles with a view of asking our kind friend of the New York Farm-

er to ascertain and publish in his next paper, what is the cost of the horse power by which these machines are propelled. If that be correspondently low, we should say that Mr. Warren will merit the thanks of the agricultural community. Although all acknowledge the superiority of the manner of getting out grain by a thrashing machine over that of the flail, or the more slovenly way of treading it out by horses, yet the expense of the former has hitherto deterred many small farmers from procuring one.

We expect in our next to be able to lay before our readers an account of the great sale of Durhams, which took place at Philadelphia on the 12th instant, having taken steps to procure a copy of the sales with that view.

We are pleased to find by our exchange papers that the mulberry and silk culture is very rapidly gaining favor in the South and West.

## FLY IN TURNIPS.

Mr. John Birkett, in a letter published in the Carlisle Patriot, gives the following recipe as being preventive of the ravages of the turnip fly:

"To a quart of turnip seed add one ounce of brimstone finely powdered, putting both into a bottle large enough to afford room to shake them well together, for four or five days previous to sowing; keep the bottle well corked."

In addition to the above, we believe it would be found useful, just at the moment when the turnips are coming up, to sow in the proportion of 4 lbs. to the acre, of flour of sulphur; this should be sown early in the morning, when the dew is on, so that the powder may adhere to the leaves of the plants. We question whether sufficient of the scent of the brimstone would be communicated to the plant from the process of managing the seed recommended by Mr. Birkett; but we do believe, that by combining his plan with the subsequent sowing on the plants here alluded to, after they come up, that they would be rendered entirely repulsive to the appetites of these destructive insects. Another good would be effected by the operation, as the sulphur is a most powerful manure, and possesses in an eminent degree the power of attracting moisture from the atmosphere, a thing in which turnips delight, and which could not fail to promote their growth.

[From the Horticultural Register.]

# OF THE ANALYSIS OF SOILS, AND OF THE AGRICULTURAL RELATIONS BETWEEN SOILS AND PLANTS.

We have seen that the earths have a threefold capacity: that they receive and lodge the roots of plants and support their stems; that they absorb and hold air, water and mucilage—aliments necessary to vegetable life; and that they even yield a portion of themselves to these aliments. But we have also seen, that they are not equally adapted to these offices; that their parts, texture, and qualities are different; that they are cold or warm, wet or dry, porous or compact, barren or productive, in proportion as one or other may predominate in the soil: and that to fit them for discharging the various functions to which they are destined, each must contribute its share, and all be minutely divided and intimately fixed. In this great work nature has performed her part; but as is usual with her, she has wisely and benevolently left something for man to do.

This necessary march of human industry, obviously begins by ascertaining the nature of the soil. But neither the touch, nor the eye, however practised or acute, can in all cases determine this. Clay when wet, is cold and tenacious—a description that belongs also to magnesian earths: sand and gravel are hard and granular; but so also are some of the modifications of lime; vegetable mould is black and friable, but not exclusively so: for schistous and carbonaceous earths have the same properties.

It is here, then, that chemistry offers herself to obviate difficulties, and remove doubts; but neither the apparatus nor the process of this science, are within the reach of all who are interested in the inquiry, and we accordingly subjoin a method, less comprehensive, but more simple, and sufficiently exact for agricultural purposes, and which calls only for two vases, a pair of scales, clean water, and a little sulphuric acid.

"1st. Take a small quantity of earth from different parts of the field, the soil of which you wish to ascertain, mix them well together, and weigh them; put them in an oven, heated for baking bread, and after they are dried, weigh them again; the difference will show the absorbent power of the earth. When the loss of weight in 400 grains, amounts to 50, this power is great, and indicates the presence of much animal or vegetable matter; but when it does not exceed 20, the absorbent power is small, and the vegetable matter deficient."

"2d. Put the dried mass into a vase with one-fourth of its own weight of clear water; mix them well together; pour off the dirty water into a second vase, and pour on as much clean water as before; stir the contents, and continue this process until the water poured off is as clear as that poured on the earth. What remains in the first employed vase, is sand, silicious or calcareous."

"3d. The dirty water, collected in the second, will form a deposit, which (after pouring off the water,) must be dried, weighed, and calcined. On weighing it after this process, the quantity lost will show the portion of animal and vegetable mould contained in the soil; and

\*See Davy's Elements.

"4th. This calcined matter must then be carefully pulverized and weighed, as also the first deposit of sand, but without mixing them. To these, apply (separately,) sulphuric acid, and what they respectively lose in weight, is the portion of calcareous or aluminous earths contained in them. These last may be separated from the mass by soap lye, which dissolves them."†

Here is the light we wanted. In knowing the disease, we find the cure. Clay and sand qualify each other; either of these will correct an excess of lime; and magnesian earth, when saturated with carbonic acid, becomes fertile.

But entirely to alter the constitution of a soil, whether by mechanical or other means, is a work of time, labor, and expense, and little adapted to the pecuniary circumstances of farmers in general. Fortunately, a remedy, cheaper, more accessible and less difficult, is found in that great diversity of habits and character, which mark the vegetable races. We shall, therefore, in what remains of this section, indicate the principal of these, as furnishing the basis of all rational agriculture.

1st. Plants have different systems of roots, stems, and leaves, and adapt themselves according to different kinds of soil. The *Tussilago* prefers clay; the *Spergula*, sand; *Asparagus* will not flourish on a bed of granite; nor *Muscus Islandicus* on one of alluvion. It is obvious that fibrous rooted plants, which occupy only the surface of the earth, can subsist on comparatively stiff and compact soils, in which those of the leguminous and cruciform families would perish, from inability to penetrate and divide.

2d. Plants of the same or of a similar kind, do not follow each other advantageously in the same soil. Every careful observer must have seen how grasses alternate in meadows or pastures, where nature is left to herself. At one time timothy, at another clover, at a third red top, and at a fourth blue grass, prevails. The same remark applies to forest trees; the original growth of wood is rarely succeeded by a second of the same kind; pine is followed by oak, oak by chestnut, chestnut by hickory. A young apple tree will not live in the place where an old one has died; even the pear tree does not thrive in succession to an apple tree; but stone fruits will follow either with advantage. "In the Gautois, (says Bosc,) saffron is not resumed but after a lapse of twenty years; and in the Netherlands, flax and colzat require an interval of six years. Peas, when they follow beans, give a lighter crop than when they succeed plants of another family."

3d. Vegetables, whether of the same family or not, having a similar structure of roots, should not succeed each other. It has been observed that trees suffer considerably by the neighborhood of

†This method of analyzing soils is that described by M. Bosc, member of the Institute of France, &c., and recommended to French agriculturists.

\*The ill effect of a succession of crops of the same kind was not unknown to the Romans. We have proof of this in the following passage of Festus: *Restibilis ager fit qui continuo biennio seritur farreo spico, id est aristato, quod, ne fiat solent, qui pradia locant, excipere.*

sainfoin and lucerne, on account of the great depth to which the roots of these plants penetrate—whereas culmiferous grasses do them no harm.

4th. Annual or biennial trefoils prevent the escape of moisture from sandy and arid soils, and should constantly cover them in the absence of other plants;† while drying and dividing crops, as beans, cabbages, chicory, &c. &c., are best fitted to correct the faults of stiff and wet clays.

5th. When plants are cultivated in rows or hills and the ground between them is thoroughly worked, the earth is kept open, divided, and permeable to air, heat, and water, and accordingly receives from the atmosphere nearly as much alimentary provision as it gives to the plant. This principle is the basis of the drill husbandry.

6th. All plants permitted to go through the phases of vegetation, (and of course to give their seeds,) exhaust the ground, in a greater or less degree; but if cut green, and before seeding, they take little from the principle of fertility.

7th. Plants are exhausters in proportion to the length of time they occupy the soil. Those of the culmiferous kinds (wheat,\* rye, &c.) do not ripen under ten months, and during this period, forbid the earth from being stirred; while, on the other hand, leguminous plants occupy it but six months, and permit frequent ploughings. This is one reason why culmiferous crops are greater exhausters than leguminous: another is, that the stems of culmiferous become hard and stinty, and their leaves dry and yellow, from the time of flowering till the ripening of the seed—losing their inhaling or absorbing faculties—circulating no juices, and living altogether in their roots, and on aliments exclusively derived from the earth; whereas leguminous or cruciferous plants, as cabbages, turnips, &c. &c., have succulent stems, and broad and porous leaves, and draw their principal nourishment from the atmosphere. The remains of culmiferous crops also are fewer, and less easily decomposed, than those of the leguminous family.

8th. Meadows, natural and artificial, yield the food necessary to cattle, and, in proportion as these are multiplied, manures are increased, and the soil made better. Another circumstance that recommends them is, that so long as they last, they exact but little labor, and leave the whole force of the farmer to be directed to his arable grounds.

9th. Grasses are either fibrous or tap-rooted, or both. The remarks already made, in articles 1, 2, and 3, apply also to them. Timothy, red top, oat grass, and rye grass, succeed best, in stiff, wet soils. Sainfoin does well on soils the most bare, mountainous, and arid; lucerne and the trefoils, (or clovers,) only attain the perfection of which they are susceptible, in warm, dry, calcareous earth.

10th. The ameliorating quality of tap-rooted plants is supposed to be in proportion to their natural duration; annual clover, (lupinella,) has less of this property than biennial, (Dutch clover,) bi-

†The "Sterilis tellus media versatur in aestu," of Virgil, shows the opinion he entertained of a husbandry that left the fields without vegetation.

\*Spring wheat and rye forms exceptions to this rule, as they will mature in four months.—*Editor Farmer and Gardener.*



ennial less than sainfoin, and sainfoin less than lucerne.

11th. Any green crop ploughed into the soil, has an effect highly improving, but for this purpose, lupins and buckwheat, (cut when in flower) are most proper.

12th. Mixed crops (as Indian corn, pumpkins, and peas, and oats) are much and profitably employed, and with less injury to the soil than either corn or oats alone.†

†The good effect of these mixtures was known to the ancients, from whom the practice has descended to us. What a picture of fertility and abundance have we in the 22d chap. 18th book of Pliny's Natural History: "Sub vite seritur frumentum, mox legumen, decinde olus, omnia, eodem anno, omniaque aliena um bra aluntur."

#### Questions Respecting the economy of cutting up Corn—Topping cornstalks should not be Practiced.

It has we think been sufficiently ascertained, that when corn is injured by an early frost, cutting it up contributes nothing to its relief, and nothing to its subsequent improvement. It is we think better, in such cases, not to molest it, for unless the frost be a very deadly one, the corn will still derive nutriment from the stalks and leaves. There is another question related to this which we think merits the attention of agriculturalists. The question is this: Is it, in general, good practice to cut up corn at all, or to cut up the stalks while the ears are attached to them? We are not for war, and if we were disposed to answer this question in the negative, we should scarcely dare do it, knowing as we do that this would bring us into conflict with almost universal opinion. We will, however, suggest certain considerations, and leave the question to be adjudicated and settled by our readers.

1. Cutting up corn at any time before the leaves are fully dead, does undoubtedly injure the crop in some degree, affecting it probably both as to quantity and quality.

2. When corn is cut up, and the stalks secured in the best manner they can be, it rarely fails that some of them get down, and thus both the corn and stalks are damaged by exposure to the weather. If it were not so, the large butts and stems of the stalks are of little value for fodder, for no sort of stock will eat them, unless compelled to it by dire starvation.

3. If the stalks be left standing in the field cattle will consume quite as great a portion of them in the fields after the corn is gathered, as they would if they had been cut and gathered to the barn.

4. As materials for dung, stalks cannot be disposed of to better advantage than to be allowed to remain where they grew, and there be mixed with the soil, as is usually done by subsequent tillage.

5. Cutting up and securing a well grown crop of corn, is a heavy and toilsome labor, involving, together with the subsequent ingathering of the stalks, no trifling item of expense.

If these things be true, is it, in general, good practice to cut up corn at all? In times of threatened scarcity of winter feed for stock, it may be, and probably is, wise and prudent to do it. It may too be profitable to do it, in the vicinity of

cities and large villages, where fodder commands high prices.

In agitating the question thus far, we have supposed that the stalks, if they were cut and gathered to the barn, were to give to stock, without further cutting or any other preparation. In the case of farmers who have good cutting machines, and intend by cutting to prepare their stalks for the use of animals, the question may assume an entirely varied aspect.

With a few occasional exceptions, our practice for several years has been, to let our corn remain unmolested, until the time of harvesting it. Sometimes we have cut up and gathered the stalks, after the corn had been separated from them. This when corn is harvested early, can be done to advantage, and if cutting be practiced at all, we think this is the better way. More generally we have left our stalks to be depastured in the field where they grew.

The advantage of practicing as we have done, are supposed to consist, 1st. In a greater quantity and better quality of corn. 2nd. In exemption from much toilsome and expensive labor. The only loss known to result from this practice, consists in the inferior quality of the stalks to be consumed as fodder. It does not appear that, as to quantity, there is any loss, for cattle will consume as great a portion of the stalks, while depasturing in the field, as they would if they had been cut, as is usually practiced, and given out in the barn yard. Neither does it appear that any thing is lost, in connection with the economy of manures. Or if there be any loss in this article, certainly it is very small.

We offer these remarks for the consideration of farmers. The question is, are the advantages which, in ordinary cases, result from cutting up corn while yet in a state of imperfect maturity, sufficient to balance the damages which it does to the crop, and the expense of doing it?

Hitherto we have said nothing relative to the practice of topping cornstalks, which formerly prevailed almost universally, and prevails now to some extent. The economy of this practice has been the subject of so many experiments, and so much light in regard to it has of late been gained, and disseminated in the public journals, that it seems scarcely necessary to reargue the subject. By many well conducted experiments, it has been proved most conclusively, that topping the stalks of corn, while so green as to be worth topping, essentially injures the crop, often causing a reduction equal to one fifth of its value. Among enlightened farmers, the practice of topping has fallen into general disrepute, and as it is most clearly an unprofitable practice, it should be entirely abandoned.

DAN BRADLEY.

Marcellus, Feb., 1837 [Genesee Farmer.

#### RIPENING OF CORN AND PLOUGHING OF GREEN CROPS FOR MANURE.

In proportion as the fecundated ear increases in magnitude, the leaves near the root begin to grow yellow and dry in consequence of the stem drawing from them the carbonaceous materials which they contain. As the growth advances, the base of the stem becomes yellow and dry in its turn, while the upper part remains green, and continues to nourish the ear.

The beautiful researches of M. Biot, afford interesting explanations of several agricultural practices hitherto not well understood, at least in a scientific point of view. For example, when the base of the stem begins to become yellow and dry, if the corn be then cut down, though the grain is not ripe, it will continue to be nourished at the expense of the green matter in the upper part of the stem, almost, if not quite as well, as if it had remained uncut, and will thus ripen well, while having been thus cut down early, much loss from shaking is prevented, besides the chance of loss by lodging from heavy rain and wind. M. Biot's experiments, from his well-known high character for rigid accuracy, are, therefore, well calculated to give farmers confidence in cutting down their corn, as soon as the lower leaves and the lower part of the stems are yellow and dry, though the upper parts be green.\*

Again, as the leaves and stems of plants while green, contain sugar and other carbonaceous materials for nourishing the seeds and bringing them to maturity, it follows that, if they are in this state ploughed down into the soil, they must greatly enrich it with all the products ready prepared for the nourishment of plants.

It has been proved, indeed, by other experiments previous to those of M. Biot, that the leaves and all the green parts of plants decompose the carbonic acid gas of the ear, appropriating the carbon, and setting free the oxygen; hence it has been inferred, that the carbon thus derived contributes to form their mass of sugar and gum, additional to the sap absorbed from the soil by their roots. This view is corroborated by the difference which M. Biot has shown between the composition of the leaves of wheat and the stem, which is more especially supplied from the soil. If then, a portion of the solid frame-work of plants is derived from the air in the form of carbon, the ploughing down of green crops for the purpose of manure, gives to the soil more than the plants, while growing, had extracted from it.

\* It is a good practice to cut down every kind of grain before it is fully ripe in the grain or the straw, and that for the reasons just enumerated in the text. But, as M. Biot's observations and common practice do not exactly agree as to the symptoms which determine the time of cutting, it is as well to note the difference. In a fine season, farmers cut down when they find the neck of the straw immediately under the ear free of juice, when twisted round between the finger and thumb; and do not wait until "the lower part of the stems are yellow and dry," because they find in such a season the straw to die from the ear downwards. This fact, we conceive, does not militate against M. Biot's theory, for as the absorbing power of the ear at the top of the stem is always powerful, it must be the more powerful the nearer the ear approaches maturity, and, of course, the part of the stem nearest the ear should first become dry. In a bad season, on the other hand, the lower part of the stem first becomes yellow and dry, after which, of course the crop is not allowed to stand; for, in such a season, the ear never becomes mature, having, of course, less absorptive power, whilst the vitality of the root is destroyed by the combined effects of bad weather and the ungenial state of the soil.

Ed.

We may well conclude with M. Biot, that "every positive determination in science is susceptible of progress and of useful application, though these may be distant. A microscopical observation, or an optical property, which at first appears only curious and abstract, may thus in time become important to agriculturists and manufacturers."—*Quarterly Journal of Agriculture*.

[From the New England Farmer.]  
SWAMP CULTURE.

MR. COOKE, SIR—I wish you to insert in the Silk Grower and Agriculturist, a communication of Mr. Conant of Jeffrey, relative to swamp culture, published in the N. H. Sentinel in March 1882, and beg leave to submit the following queries to the consideration of Mr. C.

What is the depth of mud in the swamp, and what are the specific properties of the substratum?

Was it necessary in the outset, to cut it into so small pieces by ditching, and is it still necessary to keep all the ditches open.

Does water continue in the ditches through the season.

Are there many springs in or about the swamp?

What was the variety of timber originally growing upon it?

Mr. Conant's views are requested upon the best method, and probable profit of reclaiming the swamps in this section of the country which vary in area from one to five acres, and in depth of mud from one to six feet, with a rocky, impermeable and almost impenetrable substratum; abounding in spring upon the margin, and generally covered with hard wood, mostly ash.

S. WOODWARD, JR.

Gilsum, April 15th, 1887.

The following is the communication alluded to by Mr Woodward. Answers to Mr W.'s queries will be cheerfully inserted in some future number of this paper, should Mr C. think proper to furnish them.

MR. EDITOR:—I have been cultivating a piece of meadow or swamp land of about six acres, and have often been inquired of respecting the method of cultivation and expenses; what the crops were, profits, &c. The swamp alluded to when I bought with my farm eighteen years ago had been partly cleared and was very wet, owing to the small brook that once passed through it being filled up with brush, &c.; it produced some joint grass, but principally flags, hard-hack and moss. I first commenced by opening the brook, which drained it and killed all the flags, and nearly all the grass. I then cut a ditch round a piece of about eighty square rods, cut off the stumps and the most prominent bunches of moss, and after it was frozen carted on two hundred and fifty loads of gravel and levelled it, carted on ten loads of fall manure, and in the spring following spread it, sowed on oats and grass seed. I had a good crop of oats, and the following season it was estimated by good judges that we had twenty-five hundred of timothy and clover hay. The next year I encircled about half an acre more with a broad ditch; cut the turf and moss into squares of twenty inches in diameter each, and turned it over with a prong hook, took out all the stumps and roots, leaving it level as possible, and carted on two hundred loads of gravel, and eleven of manure. In the spring

following sowed oats and grass seed, spreading on seventeen bushels of house ashes. I had a good crop of oats; and the next year one and a half tons of the best timothy hay. The next piece of about half an acre I cultivated in the following manner; after enclosing it with a ditch, began on one side and cut the turf into squares of about twenty inches diameter, piled them out of the way, and dug up the mud eight or ten inches deep, then cut another tier of squares, turned them into the trench dug as before, laid the mud on to them in like manner until the piece was completed, taking out all the stumps, roots, &c. The next spring planted it with potatoes, it yielding at the rate of three hundred bushels to the acre. After taking off the crop in the fall we levelled the mud, and in the winter carted on about twenty loads of gravel, ten of manure and six of leached ashes. In the spring after spreading all as equal as possible, sowed oats and grass seed. The oats grew very large as did the grass the next season. The method last mentioned, I have made use of in cultivating the remainder of the old or cleared part of the meadow. Of that part covered with wood we measured off one acre, cut a large ditch around it, cut by the roots all the wood and brush, carried off the wood and stumps, burned the brush and carried on sixteen loads of manure: and in the spring following laid out the manure at suitable distances on the top of the swamp; and planted it with potatoes, and we raised three hundred and fifty bushels. After the crop was off we levelled it, taking out all the roots near the top of the swamp, and sledged on ten loads of leached ashes. In the spring following spread them, and sowed on oats and herds grass seed. The oats grew large and lodged down early, so that they did not fill; the grass took well and bids fair for a large crop next season. The remainder of the swamp I have cleared and planted in like manner last season. The expense of ditching, digging up and turning an acre of the old meadow, in the way above described, is about thirty six dollars. The expense of cutting the wood, and brush from the above mentioned acre was twenty dollars.

There was twenty-one cords of wood which paid for clearing. The profit of the potato crop after paying the expenses was twenty dollars. Four acres of this land (which by the way was all there was to grass then) produced the last season at twice cropping as near as could be estimated, sixteen tons of best timothy hay.—Should it be asked if this land will continue to be thus productive, I answer it will not without manuring. It will want a top dressing once in about three years. A mixture of horse manure, loam and ashes I consider the best for the best purpose. Of the different methods I have made use of in cultivating the old part of the swamp, I consider that of digging up or turning the best, as being the cheapest and most productive, it incorporates the manure, gravel and ashes with the mud, causes a fermentation, and produces rapid vegetation. The object of the above description is two-fold. First, to answer the inquiry of numerous individuals as stated above, secondly, hoping that it will come under the notice of some gentleman who has been cultivating this kind of land, will be willing to publish the result of his experience, for I am fully of the opinion, this kind of land when known and

properly cultivated will be the most profitable we have.

JOHN CONANT.

Jeffrey, Jan. 27, 1885.

[From the "Agricultural Papers," of Agricola, in the Downpatrick Recorder.]

### THE GREEN CROP SYSTEM.

"The farmer's life displays in every part,  
A moral lesson to the sensual heart."

BLOOMFIELD.

To prevent a long digression in my last paper, I was obliged to assume that, though there are some crops which impoverish the soil very much, there are others "which are more grateful to it, and which instead of impoverishing it, afford a reciprocal advantage, by imparting to it richness." But as this statement contains the fundamental principle of the important system which I am advocating, it should not be taken on trust; and accordingly, the object of my present paper is to show, that the green crop system is not founded on a false assumption, but on an important truth. The whole crops of the farmer may be divided into two classes; the grain crops and the green crops. The former are sometimes called *culmiferous* or straw-bearing; and the latter, *leguminous*, from their seeds or leaves being of a much larger kind. Clover, beans, turnips, potatoes, &c., are leguminous plants, or belong to the class called green crops. Now, it has been proved, by experiments made for the express purpose of ascertaining, and in, therefore, beyond a doubt, that plants are not nourished by the soil alone in which they grow, but that much of their sustenance is drawn from the atmosphere; of course, they do not derive the same degree of support from either of these causes—some are nourished more by the earth, and others more by the air. Grain crops are of the former kind. As they have but small leaves, and few of them, and thus present but a small surface to the action of the atmosphere, it is plain that little of their nourishment can be derived from it: they must, therefore, be supported almost entirely by the soil. This is particularly the case when the crops have nearly ripened, when the few leaves they have are withered and dead, or have fallen off; they can then draw, perhaps, no nourishment from the air, but must be supported almost entirely by the soil.—But the fact is not so extensively known as it deserves to be, that, at this period, when the seed is forming, the plants require an extraordinary quantity of nourishment; and hence it is that grain crops are so particularly exhausting to the soil.—In proof of this, I may refer, with confidence, to the experience of any intelligent practical farmer. He knows, that if the grain be allowed to stand uncut after it has ripened, it exhausts the soil exceedingly; but, that if cut green, the impoverishing effects have not been so extensively produced. Now the green crops of leguminous plants, on the contrary, present an extensive surface to the action of the atmosphere, and, therefore, can draw much of their nourishment from it, without requiring to draw so extensively from the soil. A familiar proof of this may be had from the common cabbage. Its numerous broad leaves enable it to draw most of all its nourishment from the atmosphere, and hence it is that cabbages can be preserved for a long time, in a fresh state, if cut and hung up in a damp place. House-leek is an-



other plant which has broad succulent leaves; and who does not know that it will grow in the most unfavorable situations? If hoisted on a pole, or laid on a slab of marble, it will flourish most luxuriantly. But this is not all; some plants have been proved to exist, and thrive, and come to maturity, when nourished by the atmosphere alone—growing in pounded quartz, (a substance resembling flint) and supplied with distilled water, to prevent the presence of the smallest particle of earthly matter! Another important fact is, that all the seed of a grain crop comes forward at the same time. Whenever it has properly "shot," the plant stops growing—its seeds begin to form, its leaves wither, its roots cease to act in the ground, and, when cut down, it is dry and hard. The green crops, on the contrary, bear blossoms and seed at the same time; the roots are continually pushing forward in the ground, and the leaves are green and sappy as before, so that the plant never exerts itself to impoverish the soil. Every one knows, for example, that beans and peas may be pulled from the lower part of the stalk, while the top is bearing blossoms and embryo fruit;—that one branch of a stalk of clover will be in flower and another in seed; and that the top of a potatoe stalk will wave in verdure and bloom, when the crabs and leaves have fallen off the lower part. It may not be out of place to mention here a serious error in which many farmers fall. They allow their rye-grass to remain uncut long after it has come to maturity, alleging as a reason, that "unless it is 'dead ripe,' it will never do for seed." They forget that it is cultivated chiefly for the hay, and not for the seed; and that by allowing it to become ripe, they are disappointed of their object, as much of the seed is lost in the necessary operation of saving the hay. Besides, the quantity or weight of the hay is diminished by the parching and withering it has undergone; its quality is deteriorated, as it is rendered less palatable and less nutritious to cattle; and the fertility of the soil is greatly injured. To prevent these consequences, a small spot should be kept to furnish seed, but all the rest should certainly be cut green; the pasture produced as an aftergrowth would of itself be a sufficient remuneration for the loss of seed. A remarkable difference between the grain crops and green crops is, that the former tend to bind the ground and harden it, the latter to open and pulverize it. This is partly to be accounted for from the difference of their roots. Those of the one kind being numerous and fibrous, unite the different parts of the soil firmly together, without being large enough to produce such an action as would loosen it; those of the other kind being larger and more of an opening nature, cause an action in the soil, during the process of growing, that reduces it to a soft and mouldy state. Another cause is the difference of their fitness to admit moisture. When dew or rain falls upon a grain crop, nearly ripe, it glides down its hard, dry, bare stalk, and settles on the ground; but as this presents a hard-bound surface, it remains there until the greater part of it is carried off again by the heat of the sun. When it falls on a green crop, it receives a shelter under the broad leaves, and, trickling down the stalk, to a soil softened and prepared to receive it, it contributes to moisten it, and render it softer. Of all grain crops, wheat is by far the most severe upon

the soil. It is, in the first place, exceedingly binding, and always leaves the ground in a hard state. Then it occupies the ground so long, that it requires an extraordinary degree of nourishment, from its sowing till its reaping; the weight of the grain, besides, requires a strong stalk, and much earthy matter to bring it to perfection. Of green crops, again, potatoes are the most loosening.—They sink deep into the soil, and by the spreading of their roots in every direction, and the swelling of numerous bulbs, loosen it most effectually. It is said that a crop of potatoes is more effectual, in this respect, than a good ploughing would be. One thing, however, is certain, that no matter what may be the color of the soil when the potatoes are planted, when they are turned up, their beneficial effects are apparent; for the soil is uniformly of a rich blackish color. If I were asked, which of the various kinds of potatoes is most pulverizing and beneficial to the soil? I should answer—nowithstanding the foolish prejudices which prevail respecting them—the "cups," or "west reds." Besides sinking much deeper into the soil, they are more numerous than other kinds, and, therefore, give it a more thorough turning up. Now, from these facts, what inference can we draw? That a wheat crop should be preceded by the most loosening and fertilizing crop that can be had, viz. potatoes. They clean the ground, and, as is evident from the parallel I have drawn, they put it in a state of complete preparation for the wheat. It is absurd, then, to expect that as good crops of wheat will be produced on fallow-ground, on which there have been no potatoes.—Another conclusion, which is almost self-evident from the facts I have stated, is, that a green crop should succeed wheat, to compensate for the injury which the ground has sustained. This shows how utterly ruinous and unreasonable is the practice of taking several oat crops off the ground, immediately after wheat. Instead of nursing the soil, already too much exhausted, the very vitals are torn from it, and, then, forsooth, it is permitted to "rest itself," until the omnipotence of idleness has completely restored it! Turnips are very good for the soil, but certainly not as good as potatoes. They derive, perhaps, more of their nourishment from the atmosphere, but their roots do not penetrate so far into the ground to loosen it. They are besides too late of being raised, to admit of being followed by a wheat crop; but they can be advantageously followed up by barley, which also suits a clean dry soil. Clover, too, is particularly fertilizing to the soil in which it is produced. Its lower leaves becoming withered, fall off, and rot about its roots, and thus produce a valuable manure—decayed vegetable matter. Its slimy succulent nature keeps the ground always in a state of fertility, and its numerous dense leaves are particularly adapted for retaining the moisture that has been deposited by rains and dews. Who has not observed the rich unctuous appearance of ground where clover has been cut shortly after the deposition of the manure? I hope, and believe, that I have now proved my assertion, to the satisfaction of all who may honor this paper with their perusal. Let it be remembered too, that, in referring to the reciprocal advantages which arise from a proper rotation of crops, I have not once alluded to manures. If proper changes from grain crops to green crops, and vice versa, would almost of

themselves, suffice to keep the land "in heart," what might we not expect, when, in addition to this, one fourth of it would be well manured annually? This part of the subject brings me now to the important question noticed. How is the manure to be produced?

#### AGRICOLA.

March 29.

#### WILSON'S MOWING MACHINE.

To the Editor of the N. York Courier & Enq.:

Please allow me, through the medium of your paper, to lay before your readers an account of Wilson's Mowing Machine, which I had the great satisfaction of witnessing in full operation on the farm of Judge A. Van Bergen, in the township of Coxsackie, on Monday, 7th August, and which I rejoice in asserting, exceeded my most sanguine expectations. It was propelled by one horse, and cut a swath of four feet as fast as the horse could walk, which I suppose to be at the rate of four and a half miles per hour, cutting perfectly smooth, and no doubt falling a greater weight of grass than is usual by the best mowers, as its cut is more regular and closer to the sod, at the same time leaving the grass in winrow so as to supercede the necessity of spreading, by which great time and labour is saved. It is so constructed that the grass or grain can be cut leaving the stubble at any given height, from one and a half inches upwards, by means of a screw at the bottom of the upright shaft. The knives, six in number, are screwed on the periphery of a cylinder wheel, which revolves with great rapidity when in operation, and a constant fine edge is preserved by means of two rifles or stones that are very ingeniously applied to their edge by springs, and managed by thumb screws so as to operate as the nature of the case may require. The horse travels behind the machine in long shafts that are suspended by chains from a pair passing over the moving wheels, and by means of two boxes at the extremity of the shafts for holding weights, the heft of the draft is brought behind the horse, causing the machine to be easily propelled and managed. Indeed its whole arrangement is in excellent keeping, and its operation perfect. It must, without doubt, become to the farming interest of our country a great desideratum. Mr. Wilson deserves more than he can possibly receive for completing that which so many hundreds have failed to accomplish, and which must be the means of opening a new era in the agricultural pursuits of the country. When we reflect that mowing grass and cutting grain are the most essential labor of the farm, and that it must be performed at a particular time, or the hope and dependence of the farmer is blighted and lost, and that in the present mode obtaining the harvest, he is placed, almost entirely at the mercy of laborers, who at times are not to be had under any circumstance, the importance of this highly valuable machine cannot fail to elicit the interest of every well wisher of his country, and the assistance of every enterprising man for its speedy introduction into general use. I have been thus particular in my remarks, having been so highly gratified in witnessing its complete success in hope to convey the information to the many who should know, and join in aiding and advancing an improvement in agriculture that must operate greatly

in producing the effect so much desired, in reducing flour, beef, and indeed all the articles of consumption to that ratio which will enable our vast population to partake of the nourishments. The cultivators of land in the west may now fatten as many cattle as they think proper, for they can find no difficulty in cutting the grass necessary for sustaining them during the winter, which has hitherto been prevented, as the labor was not to be obtained at any price. Indeed I could mention numerous other advantages arising from this truly valuable labor saving machine, but shall leave it for some future opportunity: yet I cannot close these remarks without expressing a hope that Capt. Wilson will receive what he most justly merits, a full reward for his ingenuity, perseverance and industry in accomplishing so desirable an object. I am, sir, with respect, yours truly,  
A GREENE COUNTY FARMER.

[From the Turf Register.]  
**TAMING WILD HORSES—AGAIN!**  
Mount Farm, Clinton County, Ill.)  
June 10, 1837.

Mr. Editor:

In your March number, at page 316, you have made some remarks on an article of mine on the subject which is at the head of this communication, calculated to inspire doubts as to the truth of my statements, although you vouch for the respectability of my character. Your correspondent 'G.' in the same number, also seems to question their accuracy, and not only those of mine, but also those of previous correspondents on the same interesting subject. A desire is also expressed, both by yourself and him, that pains should be taken to obtain the secret by which Mount was enabled to conquer, in so short a time, that most vicious animal. Since the receipt of that number of the magazine, I have been to Kaskaskia, my former residence, and made more particular enquiries into the case reported to you, and of which I was an eye-witness, and have held conversations with those who are in possession of the secret. They all concur in my account of it, and further assure me that they are in the constant habit of using the means with which Mount operated, and have never failed of success, no matter how devilish the horses were. I am also in possession of the secret, and can teach any man acquainted with horses to subdue and render tractable the most ungovernable in one or two hours. About this there is no mistake. By the same means, the most baulky horse can be made to pull as true as the best dray horse in your city, and oxen can be broke to the yoke, and to pull without flinching, in an hour or more.

Some further facts in relation to 'the roan' on which Mount operated at Kaskaskia were given to me, in substance thus: that the next day, in taking him from the wagon, the driver went behind his legs, unhitched the traces, gave him a kick, and he trotted off to the stable like an old stage horse; and further, when he left town 'roan' was turned loose and trotted after the wagon, never offering to run away, and this, a horse raised in the woods, and but for a few hours under the dominion of man! All this, I admit, is a severe draft upon credulity, but it is as true as that controul has been given to us over the whole brute creation.

I have ascertained to my perfect satisfaction, that the means used have no injurious effects whatever on the spirits of the horse; upon his disposition they act like a charm, and seem to attach him to the person who administers them.

A gentleman who has practised the art assured me that he caught, for his little sister, a wild Point horse, and in one week had so completely gentled him that she rode him every where with the most perfect safety. That the means used, properly administered, will produce the effects spoken of, there is no more doubt than that you have an existence.

SIGMA.

Remarks by the Editor of the Turf Register.

The subject of the above article from 'Sigma' becomes more and more interesting every day. The facts stated by various persons are so strange, so 'out of the usual course of things,' that 'Sigma' himself need not wonder that many people continue to doubt, though they are affirmed to by persons ever so respectable. The facts asserted by 'Sigma' and various other respectable gentlemen, are neither more nor less than what are almost universally believed to be impossibilities. If we were to assert that we could take a wild horse, and in one hour so completely change his disposition and habits as to render him docile and tractable, so that he can be ridden by any person or driven in a carriage, there are few people in the world that would believe us; and yet this is simply the very fact asserted by 'Sigma,' and which we now candidly believe can be done. We did not intend to cast a shadow of doubt on the statement of 'Sigma,' nor do we believe that 'G.' did. We know the character of 'Sigma' too well to doubt what he asserted as a fact within his own knowledge.

The editor of the Turf Register has now the pleasure of announcing that he is in possession of the secret; it has, however, been acquired at too late a day for a trial before the present number goes to press. He is not at liberty at present to publish it, nor communicate it to others, but hopes, after a fair trial shall have been made of it, to obtain permission for its publication. Not having tried the experiment we cannot speak practically of its results; but we are led to believe, from recollections of analogous things and circumstances, that not only horses may be rendered docile, but many, if not all other animals may be domesticated and tamed, or stripped of their wild ferocious propensities by the application of this singular practice. We would remark to 'G.' and several others who have suggested what they supposed was the secret, that nothing mentioned by any of them forms any part of it. There is no stopping the ears with wool, nor applying the affluvia from the arm pits to the nose of the horse, nor severe flagellation, nothing of the kind nor any thing like them in 'the secret.' By the way, we must invent a name for it, for it will make a noise in the world yet.

[From the Library of Health.]

#### THE SICK HEADACHE.

How often, in our country, do we hear of sick headache! How many hours and days—yes, and at the aggregate years and centuries, of valuable time are lost by it, to say nothing of the suf-

fering it entails! And how rapidly do we find it increasing among us, notwithstanding the numerous certain cures for it, which are prescribed at every corner, by nearly every apothecary, every Indian and steam doctor, and every old woman!

One reason why it increases is, that care and anxiety increase. The questions—What shall we eat, what shall we drink, and wherewithal shall we be clothed, not only agitate the human mind as they always did, but they distress it. Once the wants of the community were comparatively few, and easily supplied. But now that labor-saving machinery and the other items of what we call civilization have brought new articles of food, dress, equipage, &c., to our doors, and a thousand things which would once have been regarded only as luxuries, have become necessities. Once we could be happy with a few things; and if one of these supposed necessities was absent, it did not make us so miserable as the absence of the same proportion of our supposed necessities does now. We touch the world, as it were, at a great many more points than formerly; and this increases our care and anxiety to avoid injury by being properly shielded. But this care and anxiety creates nervousness; and one of the forms in which this nervousness is manifested, is sick headache.

Another reason why the sick headache increases, is, that we take the wrong medicine to cure it. We resort almost universally, to some nervous excitant, or as some call it, extraordinary stimulant. One resorts to tobacco, another to spirits, another to opium, another to snuff, another to coffee, another to tea, another to cayenne pepper, and another still to an increased proportion of flesh meat. All these with many, are certain cures for the sick headache; so they say; and so it undoubtedly is. That is, all these, in different individuals, and at different times are known to afford—for the moment—positive relief. But there is not one of them that cures the more common forms of sick headache permanently. The relief is only temporary. Nay, the cause which first produced it, and which was just now called nervousness, is even increased by it. That disease, sensibility of the nervous system of which we speak, may indeed wear out gradually, but none of the above mentioned excitants hasten the process. In general they retard it. The headache sometimes gradually wears out in spite of them. But it would always wear out were they entirely let alone. No person ever found relief from sick headache in a cup of tea, or coffee, or a pinch of snuff, or a glass of brandy, or an extra meal of exciting food, in whom the pain did not, as the consequence, tend to return again, with increased violence.

Another reason why sick headache increases, is because it increases. The matter is easily explained. Multitudes who are subject to it, after a day or two's loss of time and much pain, not only return to their accustomed occupation, whatever it may be, but labor with increased exertion, as if to make up for lost time. And what is still worse, and in some respects inexplicable, though they often discover that their season of headache is rendered more intolerable by overworking or overeating, or by eating of certain substances, they will readily resort again to the same things, or the same excess of labor or food, as if they were entirely ignorant of the whole subject. The more



they are afflicted, the more determined they seem to have it out, in their erroneous course, during their days and weeks of health. And the more these seasons of health are shortened, the more eagerly do they pursue a course of conduct which they are fully sensible will tend to shorten them, as well as to render their seasons of pain more severe.

One individual whom we knew, used frequently to remark, that she was free from her headache as long as she labored moderately, and confined herself to a few crusts of bread. Why then did she not live in this way at all times? Why not confine herself to plain, simple vegetable food and water? Why return to stimulating food and drink, and at alternation of labor with indolence, when she knew perfectly well that they would bring with them a return of the suffering?

No one cause produces more sick headache than the violence which is done, in modern times to the stomach. In the first place, the strange mixtures which are thrust into it are quite enough to destroy it, and through it the health of the brain and nervous system. If the contents of a stomach recently replenished at a fashionable table, could be exposed to view as the contents of an open pail or vessel, few could endure the sight. They would turn away in disgust; and well might. The stomach was never intended, by its divine Author, to hold such heterogeneous mixtures.

In the second place, we throw numerous substances into it which it cannot dispose of but with the greatest difficulty. Of this sort are our gravies, our sauces, our pickles, many of our preserves, our salads, our mince pies, our paste dumplings, our melted butter, our fat meats, our hot buttered flour bread, and our pastry in general.—And even of wholesome things, we strongly abuse our powers of digestion, by our neglect of mastication.

Thirdly,—we swallow numerous substances which are well calculated to inflame the tender lining membrane of our stomachs. We could mention twenty substances in common use as food or drink, which, at the temperature at which they are usually received, could not lie ten minutes on the lining membrane of the mouth or the throat without inflaming it. Nay, more—we could mention several which, under the circumstances above mentioned, would cause a slight degree of inflammation in the palm of the hand, thick and tough as the searfskin is. And does any one believe that such things will not injure the lining membrane of the stomach? In charity to human ignorance we would be glad to believe so. But we cannot. Most of us eat substances daily, which would as certainly inflame our mouths and throats as they pass through them were they not in continual and rapid motion, in passing, and did we not so soon convey them away into a common repository, more remote from the seat of sensation.

In view, then, of the whole subject, let us cease to wonder at the prevalence and even the increase of nervous or sick head-ache. Either that or some other disease must continue to prevail, and even to increase, as long as people continue thus to abuse themselves. It is a blessing that it should be so. Disease in its moderate

forms, such as sick head-ache, is designed to warn us of the danger of our errors—and if we do not heed the warning, it is but just that we should suffer severer punishment.

#### PLUMBAGO.

It was lately stated in the English papers, that the celebrated Mine of Plumbago, or Black Lead, at Borrowdale, in England, was exhausted, and that no other source of obtaining this useful mineral was known. It has since been stated, in some of the papers of this country, that Plumbago can be obtained in any quantity in the vicinity of RALEIGH, in NORTH CAROLINA. To confirm this statement, we have pleasure in publishing the following extract from a Geological Report made to the Legislature of North Carolina, several years ago, by Professor OLMSTED, then Professor of Chemistry and Mineralogy at the University of that State, and at present Professor of Mathematics in Yale College.—*Nat. Intelligencer.*

"This great deposit of Black lead," says the Professor, "lies a little westward of RALEIGH.—The whole formation consists of a great number of parallel beds, varying in width from a few inches to twenty feet. They lie in a singular variety of isinglass rock, (*micaceous schistus*), usually of a bright cherry red, but sometimes of a silvery white color. These beds occur throughout a space not less than three-fourths of a mile wide, and ten miles long. I have never read of any mine of Plumbago which can compare in extent with this, and have reason to believe it is the largest mine on record."

Professor SILLIMAN having had a specimen of this plumbago presented to him by the late Judge JOHNSON, of the Supreme Court of the United States, said, "it is of very fine quality, and appears well adapted both for crayons and pots." And Professor DEXTER, of Williams College, Massachusetts, on viewing another specimen, declared, "it was the finest he ever saw."

*Italian Spring Wheat*—Edward P. Roberts, editor of the Farmer and Gardener, Baltimore, has been appointed agent for the sale of a lot of 140 bbls. of first rate Italian Spring Wheat. It will be sold in lots of one or more barrels, at \$3½ per bushel, each barrel supposed to contain three and a half bushels of wheat. An opportunity is now offered to those who may desire to procure seed, and we hope not a few will embrace it.—*Caroline Advocate.*

#### ITALIAN SPRING WHEAT FOR SEED.

THE undersigned having been appointed agent for the sale of a lot of first rate Italian Spring wheat, begs leave to notify those who may desire to procure seed, that he is prepared to receive orders for the same. This wheat will be cleaned with great care, put up in tight barrels, and sold in lots of one or more barrels. As the quantity the undersigned expects to receive will not be more than 140 barrels, persons desirous of procuring a supply will make early application. The price will be \$3½ per bushel, the cash to be paid on the delivery of the grain. For the guidance of purchasers, he would mention that each barrel is supposed to contain about 3 1-2 bushels of wheat. Address, (post paid) EDWARD P. ROBERTS, Baltimore, Md. jy 25 4t

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During the last four years the Proprietor has erected two extensive Establishments for the manufacture of Agricultural Implements generally, including an extensive Iron Foundry, Trip Hammer, &c. With these facilities, and the most experienced workmen, (many of whom have been several years in his employ,) and the best materials, he flatters himself that he will continue to give general satisfaction to his customers, his object is to confine himself to useful implements, and to have them made in the best possible manner and on reasonable terms.

The following are some of the leading articles now on hand, viz. his own Patented Cylindrical Straw Cutters, of various sizes and prices—these machines have never been equalled by a similar machine in any part of the world.

Corn and Tobacco Cultivators	Threshing Machines, with or without horse power
Superior Grain Cradles	F. H. Smith's Patent Lime Spreaders
Weldron Grain and Grass Scythes	A great variety of Ploughs of all sizes, with wrought and cast iron Shares
Farwell's Patent Double Back Grass Scythes and Snathes	Swingle Trees and Hames
Hay Forks and Rakes	Also, a great variety of Plough Castings, constantly on hand for sale by the piece or ton. All kinds of Machine Castings made to order; repairs on Ploughs and Machinery done at short notice
Manure Forks, Shovels, &c.	Liberal discount made to those who purchase to sell again.
English Corn Hoes	
Superior American made Cast-Steel Hoes, with handles	
Wheat FANS, of various sizes	
Mattocks, Picks and Grubbing Hoes	
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All kinds of Grass SEEDS and Seed Grain bought and sold by him, and particular attention paid to their quality.

Likewise constantly on hand a general assortment of Mr. D. Landreth's superior GARDEN SEEDS, raised by himself, and warranted genuine. All communications by mail, post paid, will receive prompt attention.

jy 4 J. S. EASTMAN.

#### TO PRINTERS.

FOR SALE—A first rate SMITH PRESS, the platen 24 by 36 inches, which will work a form the size of the daily papers in Baltimore. It has the latest improvements of the patentee, has been in use a short time, and is as good as new. Any printer requiring a press of this size, cannot be better supplied than by the purchase of this. It can be examined while in operation, and any one at a distance disposed to purchase, is requested to select some printer to inspect it. The original cost and expenses deliverable to us, was about \$300.—It will be sold together with the roller frames, stocks, &c. complete as it now stands in operation, for \$275, on a credit of three months, for an approved note.

Apply to SANDS & NEILSON, Office of "Farmer & Gardener," jy 25 4t Corner of Charles & Market sts. Baltimore.

#### A BROOD MARE & TWO COLTS FOR SALE.

The subscriber is authorized to sell a brood MARE with her two foals—the mare is half sister to Bachelor, her eldest colt now rising one year old is by Messenger, a full blooded horse, the other was dropt the last spring, is by Young Tom, one of the purest of the Tom blood in the country, and is himself one of the fastest trotters and rackers any where to be found. EDW. P. ROBERTS, Baltimore, Md. au 29 4t

#### MORUS MULTICAULIS

The subscriber has now growing at his residence about 2 miles east of BALTIMORE, MD. between 25,000 and 30,000 Morus Multicaulis trees, which will be ready for sale this fall.

EDWD. P. ROBERTS, Baltimore, Md. August 15.

#### A JENNET FOR SALE.

THE subscriber has for sale a JENNET of good size and unexceptionable pedigree. She is 13 years old, and warranted sound. As her owner is desirous of selling her a bargain will be given in her. Applications made in writing must be post paid, EDW. P. ROBERTS, Baltimore, Md. ap 26

## BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every Monday

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 25	
CATTLE, on the hoof,.....	100lbs	6 50	7 50
CORN, yellow,.....	bushel	93	95
White,.....			102
COTTON, Virginia,.....	pound	11	
North Carolina,.....			
Upland,.....		10	12
Louisiana — Alabama			13
FEATHERS,.....	pound.	50	
FLAXSEED,.....	bushel.	1 37	1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	10 50	11 50
Do. do. baker's,.....			
Superior, st. from stores		8 75	9 00
" wagon price,		8 25	
City Mills, sugar,.....		8 00	8 25
" extra,.....		8 50	
Susquehanna,.....		9 37	
Rye,.....		5 75	6 00
Kiln-dried Meal, in hhd.	hhd.	24 00	
do. in bbls.	bbl.	5 25	
GRASS SEEDS, whole red Clover,	bushel.	6 50	7 00
Timothy (herds of the north)		3 50	4 00
Orchard,.....		2 50	3 00
Tall meadow Oat,.....			2 75
Herds, or red top,.....		75	1 00
HAY, in bulk,.....	ton.	12 00	15 00
HEMP, country, dew rotted,.....	pound.	6	7
" water rotted,.....		7	8
HOES, on the hoof,.....	100lb.	6 75	6 87
Slaughtered,.....			
HOPS—first sort,.....	pound.	9	
second,.....		7	
refuse,.....		5	
LENS,.....	bushel.	32	35
MUSTARD SEED, Domestic, —; blk.		9 50	4 00
OATS,.....		32	
PEAS, red eye,.....	bushel.		
Black eye,.....		87	1 00
Lady,.....		1 00	
PLASTER PARIS, in the stone, cargo,	ton.	3 37	3 50
Ground,.....	barrel.	1 62	
PRIMA CRISTA BEAN,.....	bushel.		
RICE,.....	pound.	3	4
RYE,.....	bushel.	65	70
Susquehanna,.....			none
TOBACCO, crop, common,.....	100lbs	2 50	3 50
" brown and red,.....		4 00	6 00
" fine red,.....		8 00	10 00
" wrappery, suitable			
for segars,.....		10 00	20 00
" yellow and red,.....		8 00	10 00
" good yellow,.....		8 00	12 00
" fine yellow,.....		12 00	16 00
Seconds, as in quality,.....			
" ground leaf,.....			
Virginia,.....		4 50	9 00
Rappahannock,.....			
Kentucky,.....		4 00	8 00
WHEAT, white,.....	bushel.	1 75	1 80
Red, best,.....		1 55	1 60
Maryland inferior		1 10	1 50
WHISKY, 1st pf. in bbls. ....	gallon.	39	40
" in hhd. ....			37
" wagon price,.....			30
WAGON FREIGHTS, to Pittsburgh,	100 lbs	1 75	
To Wheeling,.....		2 00	
WOOL, Prime & Saxon Fleeces,...	pound.	40 to 50	20 22
Full Merino,.....		35	40 18 20
Three fourths Merino,.....		30	35 18 20
One half do.....		25	30 18 20
Common & one fourth Meri.		25	30 18 20
Pulled,.....		28	30 18 20

## MORUS MULTICAULIS TREES.

The subscriber has from 25,000, to 30,000 Morus Multicaulis trees now growing at his residence, with roots of 1, 2, and 3 years old, which will be ready for sale this fall, and which he will sell on moderate terms.

EDWARD P. ROBERTS.

Baltimore, Md.

## BALTIMORE PROVISION MARKET.

	PER	FROM	TO
APPLES,.....	barrel.		
BACON, hams, new, Balt. cured...	pound.		13 1/2
Shoulders,..... do.....			11
Middlings,..... do.....		do	do
Assorted, country,.....		10	10 1/2
BUTTER, printed, in lbs. & half lbs.		20	25
Roll,.....			
CIDER,.....	barrel.		
CALVES, three to six weeks old...	each.	5 00	6 00
COWS, new milch,.....		25 00	40 00
Dry,.....		9 00	12 00
CORN MEAL, for family use,.....	100lbs.	2 00	2 06
CHOP RYE,.....			1 75
EGGS,.....	dozen.	18	
FISH, Shad, No. 1, Susquehanna,	barrel.	6 75	
No. 2,.....		6 50	
Herrings, salted, No. 1,.....		2 75	2 87
Mackerel, No. 1, ————No. 2		9 00	10 00
No. 3,.....		4 75	
Cod, salted,.....	cwt.	3 00	3 25
LARD,.....	pound.	9	10

## BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

U. S. Bank,.....	par	VIRGINIA.
Branch at Baltimore,.....	do	Farmers Bank of Virgin. 2
Other Branches,.....	do	Bank of Virginia,..... do
MARYLAND.		Branch at Fredericksburg do
Banks in Baltimore,.....	par	Petersburg,..... do
Hagerstown,.....	do	Norfolk,..... do
Frederick,.....	do	Winchester,..... do
Westminster,.....	do	Lynchburg,..... 2 1/2
Farmers' Bank of Mary'd, do		Danville,..... do
Do. payable at Easton,....	1	Bank of the Valley,.... 2
Salisbury,..... 2 per ct. dis.		Branch at Romney,.... 2 1/2
Cumberland,..... 3		Do. Charlestown, 2
Millington,..... do		Do. Leesburg,..... 2
DISTRICT.		Wheeling Banks,.... 4
Washington,.....		Ohio Banks, generally 6a7
Georgetown,.....	Banks, 1p.c.	New Jersey Banks gen. 5
Alexandria,.....		New York City,..... 1
PENNSYLVANIA.		New York State,.... 3a4
Philadelphia,.....	do	Massachusetts,..... 3a3 1/2
Chambersburg,.....	1	Connecticut,..... 3a3 1/2
Gettysburg,..... do		New Hampshire,.... 3a3 1/2
Pittsburg,..... 3 1/2		Maine,..... 3a3 1/2
York,..... 1		Rhode Island,.... 3a3 1/2
Other Pennsylvania Bks. ....		North Carolina,.... 6
Delaware [under \$5]....	6	South Carolina,.... 8a10
Do. [over \$5].....	2	Georgia,..... do
Michigan Banks,..... 10		New Orleans,..... 15
Canadian do..... 10		

## CABBAGE SEED, &amp;c.

## FOR SUMMER AND FALL SOWING.

Just received, an additional lot of Early York Cabbage Seed of the Scotch short stalk variety, imported from Edinburgh. This cabbage is full as early as the English Early York, larger head, very dwarf, and is decidedly superior to all early cabbage seed for fall sowing. Also, Early dwarf Paris, Early Battersea, Early George, Bullocks-heart, Flat Dutch, Savoy and other Cabbage Seeds. Large Holland Cauliflower, and Kale Seed, of various sorts, among which is the Delaware Kale, the best sort for fall sowing, color dark green, tinged with purple, the leaf tender and curled.

## IN STORE,

Corn Salad, Curled Endive, early Curled Cilicia, brown Dutch and large white head Cabbage Lettuce seeds; black and white Spanish and yellow Turnip Radish seed for fall sowing, the latter a superior sort, and will produce well if sown at any season of the year.

Will be in store in a few days, the Fye Plant or Tart Rhubarb seed, producing a very choice vegetable, and should be cultivated in every garden.

ROBT. SINCLAIR, jr. &amp; CO.

Light, near Pratt street wharf.

aug 22 A R V P 2aw3w 3w

## AMERICAN FARMER.

COMPLETE sets of this excellent periodical, consisting of 15 volumes each, for sale at this office.

## DURHAM &amp; AYRSHIRE CATTLE.

The subscriber is authorized to sell the following superior Cattle:

Montezuma, an improved Durham short-horned bull, a light, or fashionable roan. He was imported by R. D. Shepherd, Esq. in March, 1835, for whom he was purchased from Mr. Page in the county of Durham, England. Montezuma was got by Wharfingdale, dam by Nassau-bonum, g. d. by Prism: he was calved 30th March, 1833.

As an evidence of his superior powers in the perpetuation of his species, we would state, that he is the sire of Nancy Thompson and Hampton, calves now owned by Mr. George Beltzhoover. Nancy Thompson, was calved in March last, and now weighs 527 lbs. Hampton was calved 4th May last, and now weighs 380 lbs. Indeed all the calves of Montezuma, which we have seen, are remarkable for their extraordinary size and fine points:

A short horn improved Durham bull calf, 3 months old, got by Neptune, he by Orozimbo out of a full-blooded Durham heifer, 2 years old, the dam of which was imported by R. D. Shepherd, Esq. and sold to the Hon. H. Clay.

6 Ayrshire calves, 3 males and 3 females, from 2 to 8 months old. These calves are all out of cows imported by R. D. Shepherd, Esq. selected by his Agent from the best herd in the kingdom of Great Britain. The mothers of two of those calves, with their first calf, respectively, gave 20 and 24 qts. of milk per day, when fresh.

The Ayrshire breed of Cattle is justly considered the best dairy cows in Scotland, they are of medium size, hardy of constitution, docile in disposition, easily kept, and deep milkers, yielding as much milk and butter, weight considered, as any other variety.

Letters post paid to the subscriber will meet with prompt attention. EDWARD P. ROBERTS,

Editor Farmer and Gardener, Baltimore, Md.

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## INTERESTING TO FARMERS.

HAVING procured the best machinist in Maryland, we are now ready to fill all orders entrusted to our care, for the following implements:—WHEAT FANS, STRAW CUTTERS and CORN SHELLERS, &c. all of which articles are made in superior style—They also manufacture GRAIN CRADLES warranted superior to any ever manufactured in Baltimore for cost of cutting, and saving of grain, being peculiarly adapted to the economy of force and labor.—FLOUGHS of all descriptions neatly got up. The public are invited to call and judge for themselves; the subscribers being confident that all persons competent to discriminate between the relative value of implements of husbandry, will give the preference to theirs. JOHN T. DURING & CO.

je 27 4t Fronting Grant and Ellicott sta.

## GARDEN SEED.

THE subscriber has just received his general supply of fresh Garden Seeds from the Messrs. Landreth's of Philadelphia—those for retailing bearing their label and warranted. The Messrs. Landreth grow the most of the seeds they vend, and theirs is the oldest and probably the most extensive establishment in this country, and their seeds have no rival as to quality. Orders from country dealers will be supplied at short notice. Catalogues furnished gratis.

JONATHAN S. EASTMAN.

Feb. 14

## WHITE TURKEYS, GEESSE AND PIGS.

THE subscriber has for sale a few pair of pure White Turkeys, large Westphalia white Geese, and Barnitz white Pigs, which will be sent to order, cooped and furnished with feed suitable for a voyage, at \$10 a pair for the latter, and \$5 a pair for the two former.

ROBT. SINCLAIR,

[Jan 7 4t At Clairmont Nursery, near Baltimore.

## CONTENTS OF THIS NUMBER.

Crossing wheat; notice to those wanting spring wheat; rise in price of cotton; advice to destroy weeds, &c.; Dutton corn; cheap thrashing machines; sale of Durham cattle; extension of the mulberry and silk culture; fly in turnips; analysis of soils; on the economy of cutting up corn, &c.; ripening of corn and ploughing of green crops for manure; swamp culture; the green crop system; Wilson's mowing machine; taming wild horses; the sick head-ache; plumbago; Italian aping wheat; advertisements; prices current.